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AARM

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ENVIRONMENTAL PERFORMANCE -
MEETING THE CHALLENGE THROUGH CONTINUOUS
IMPROVEMENT

by

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GOOD MORNING. IT'S MY PLEASURE TO BE HERE WITH YOU TODAY AND DISCUSS THE MANY ASPECTS OF WASTE MANAGEMENT HERE IN ONTARIO. MY PART WILL BE TO SHOW YOU HOW WE AT DOW HAVE IMPROVED OUR ENVIRONMENTAL PERFORMANCE THROUGH A CONCEPT WE CALL THE 'CONTINUOUS IMPROVEMENT PROCESS'.

QUALITY! WHO ARGUES AGAINST QUALITY THESE DAYS? MUCH IS BEING WRITTEN AND SAID ABOUT HOW TO DEVELOP A MANAGEMENT SYSTEM TO NURTURE QUALITY IMPROVEMENT. THE CONCEPT OF QUALITY IMPROVEMENT IS VISIBLE TO US AS CONSUMERS. THE MAJOR AUTOMOBILE MANUFACTURERS ARE AMONG MANY RETAILERS APPEALING TO OUR DESIRE FOR QUALITY. THEY TELL US THAT 'QUALITY IS JOB 1' AND THAT EVEN THE SMALLEST DETAILS 'ARE SWEATED'.

TRUE QUALITY IMPROVEMENT MEANS, I BELIEVE, TO RELENTLESSLY PURSUE WAYS OF ENHANCING THE QUALITY OF EACH AND EVERY ONE OF THE ACTIVITIES WITHIN AN ORGANIZATION. NO PLATEAU OF PERFORMANCE CAN EVER BE GOOD ENOUGH. TOM PETERS, AUTHOR OF "TOWARDS EXCELLENCE", TELLS US THAT WE HAVE TO DEVELOP A PASSION FOR EXCELLENCE IN A WORLD OF CHAOS.

THIS CONCEPT OF ONGOING QUALITY IMPROVEMENT IS AN EXCITING ONE. IN DOW CANADA WE HAVE ADOPTED THE PRINCIPLE OF CONTINUOUS IMPROVEMENT TO POSITION OURSELVES TO MEET THE INCREASINGLY COMPETITIVE MARKETPLACE.

HOW DO WE DEFINE CONTINUOUS IMPROVEMENT IN DOW CANADA? WE DEFINE IT AS A CUSTOMER-ORIENTED PROCESS, A JOURNEY THAT CLOSELY EXAMINES THE WAY A JOB IS DONE AND USES BASIC DATA ANALYSIS TO IDENTIFY WAYS OF DOING THAT JOB EVEN BETTER. AT DOW, WITH THE FULL COMMITMENT OF MANAGEMENT, EACH EMPLOYEE IS BEING TRAINED AND ENCOURAGED TO ACTIVELY PARTICPATE IN FINDING NEW WAYS OF DOING THINGS BETTER IN THEIR OWN WORK AREAS. IN SHORT, WE WANT THE INVOLVEMENT OF EACH OF OUR EMPLOYEES. CONTINUOUS IMPROVEMENT IS A SIMPLE, YET VERY POWERFUL PHILOSOPHY, AS YOU WILL SEE.

THE CONTINUOUS IMPROVEMENT CONCEPT IS WIDELY APPLIED IN ALL AREAS OF OUR BUSINESS FROM R&D, ENGINEERING AND MANUFACTURING, TO COMMERCIAL AND ADMINISTRATIVE FUNCTIONS. MANAGING THIS SELF-DRIVEN CONTINUOUS IMPROVEMENT PROCESS AT EVERY LEVEL OF OUR COMPANY HAS HAD A POSITIVE IMPACT ON HOW WE PERFORM IN SUCH AREAS AS OCCUPATIONAL HEALTH AND SAFETY, CUSTOMER AND COMMUNITY RELATIONS AND, OF COURSE, ENVIRONMENTAL PERFORMANCE.

DURING THIS PRESENTATION I WANT TO SHARE WITH YOU SOME OF THE SIGNIFICANT IMPROVEMENTS WE HAVE RECORDED, USING CONTINUOUS IMPROVEMENT, RELATIVE TO ENVIRONMENTAL PERFORMANCE. I WANT TO ESPECIALLY FOCUS ON SPILL AND EMISSION REDUCTIONS AT OUR SARNIA DIVISION SITE. I WILL THEN REVIEW HIGHLIGHTS OF OUR CURRENT ACTIVITIES AND, FINALLY, I WANT TO BRIEFLY COVER SOME OF OUR PLANS FOR THE FUTURE.

BEFORE PROCEEDING, A FEW INTRODUCTORY WORDS ABOUT THE SARNIA DIVISION ARE IN ORDER. THE SITE, WHICH BEGAN OPERATIONS IN 1942, IS LOCATED ON THE ST. CLAIR RIVER WHICH CONNECTS LAKE HURON WITH LAKE ST. CLAIR. OUR DIVISION IS THE LARGEST AND MOST DIVERSIFIED CHEMICALS AND PLASTICS COMPLEX IN CANADA, CONSISTING OF 13 MANUFACTURING UNITS. WE PRODUCE ABOUT 3.4-BILLION POUNDS OF PRODUCT EACH YEAR. AMONG OUR 23 PRODUCTS ARE CHLORINE AND CAUSTIC SODA, VINYL CHLORIDE, PERCHLOROETHYLENE, EPOXY RESIN, LATEX, POLYSTYRENE AND POLYETHYLENE.

AS A KEYSTONE OF OUR OPERATIONS, WE HAVE HAD AN ENVIRONMENTAL POLICY IN PLACE FOR MANY YEARS. THIS POLICY STATES THAT: "THE DOW CHEMICAL COMPANY IS COMMITTED TO CONTINUED EXCELLENCE, LEADERSHIP AND STEWARDSHIP IN PROTECTING THE ENVIRONMENT. ENVIRONMENTAL PROTECTION IS A PRIMARY MANAGEMENT RESPONSIBILITY AS WELL AS THE RESPONSIBILITY OF EVERY DOW EMPLOYEE. IN KEEPING WITH THIS POLICY, OUR OBJECTIVE AS A COMPANY IS TO REDUCE WASTE AND ACHIEVE MINIMAL ADVERSE IMPACT ON THE AIR, WATER, AND LAND THROUGH EXCELLENCE IN ENVIRONMENTAL CONTROL."

THE POLICY HAS BASICALLY REMAINED UNCHANGED IN PRINCIPLE AS FAR BACK AS MY RECORDS SHOW. HOWEVER, IT IS REVIEWED FROM TIME TO TIME AND AT THE HEART OF A NOVEMBER 1987 REVISION IS A COMMITMENT TO DESIGN OR MODIFY PLANTS, IF NECESSARY, (QUOTE) "TO USE THE BEST PRACTICAL TECHNOLOGY TO PERMIT COMPLIANCE WITH REGULATORY REQUIREMENTS" (UNQUOTE) AND TO MINIMIZE WASTE GENERATION (QUOTE) "WITH REDUCTION AT SOURCE GIVEN FIRST CONSIDERATION" (UNQUOTE).

I SHOULD MAKE CLEAR THAT WE HAVE NOT CHANGED OUR ENVIRONMENTAL GOALS IN RECENT YEARS AS A RESPONSE TO INCREASED PUBLIC SCRUTINY AND NEW REGULATIONS. ENVIRONMENTAL RESPONSIBILITY HAS ALWAYS BEEN TAKEN SERIOUSLY AT DOW. WHAT WE HAVE DONE, THOUGH, IS TO ACCELERATE OUR EFFORTS TO IMPROVE OUR PERFORMANCE. WE HAVE INCREASED THE RATE AT WHICH WE ARE MAKING PROGRESS; AND WE HAVE MADE CONTINUOUS IMPROVEMENT AN INTEGRAL PART OF THAT ACCELERATED PACE.

AT DOW, THE PRESENT ERA OF ENVIRONMENTAL AWARENESS REALLY BEGAN IN THE LATE 60'S AND EARLY 70'S. BETWEEN 1970 AND 1985 PERSONNEL WORKING FULL TIME ON IMPROVING OUR ENVIRONMENTAL PERFORMANCE AT THE SARNIA DIVISION EXPANDED FROM ONE TO TWENTY-TWO PEOPLE. BETWEEN 1975 AND 1985 WE SPENT AN AVERAGE OF \$5-MILLION EACH YEAR ON VARIOUS ENVIRONMENTAL CONTROL PROGRAMS.

THIS CHART SHOWS THE REDUCTION OF OVER 95% IN CONTAMINANTS TO THE ST. CLAIR RIVER BETWEEN 1970 AND 1985 AS MEASURED BY TOTAL ORGANIC CARBON -- THE RESULT OF THREE KEY PROGRAMS PUT IN PLACE TO SPECIFICALLY ADDRESS THIS ISSUE. WE HAVE ALSO BEEN ACTIVE IN REDUCING EMISSIONS TO THE AIR WITH AN 84% REDUCTION IN VOLATILE ORGANIC CARBON BETWEEN 1971 AND 1985 -- MATERIALS SUCH AS PROPANE, ETHYLENE AND PROPYLENE.

NOW TO THE PERIOD 1985 TO DATE. WE HAVE CONTINUED TO ADD RESOURCES TO OUR ENVIRONMENTAL PROGRAMS; FOR EXAMPLE, THERE ARE NOW 36 PEOPLE WORKING FULL TIME ON ENVIRONMENTAL ISSUES IN THE SARNIA DIVISION -- NEARLY DOUBLE THE MANPOWER LEVEL THAN IN EARLY 1985. WE HAVE ESTABLISHED AN ENVIRONMENTAL ISSUES MANAGEMENT TEAM MADE UP OF SENIOR MANAGERS FROM R&D, MANUFACTURING, COMMUNICATIONS, COMMUNITY AFFAIRS, LEGAL AND ENVIRONMENTAL SERVICES. THE TEAM, WHICH REPORTS DIRECTLY TO THE SITE MANAGER, IS MANDATED TO "IDENTIFY ENVIRONMENTAL ISSUES AND OPPORTUNITIES AND TO CHANNEL APPROPRIATE RESOURCES TO MANAGE THEM EFFECTIVELY."

EMPLOYEE AWARENESS PROGRAMS RECEIVED PRIORITY ATTENTION IN 1986/87 AND AGAIN JUST LAST WEEK. IN COOPERATION WITH THE MINISTRY OF ENVIRONMENT, OUR OPERATING BOARD MEMBERS, SENIOR MANAGEMENT FROM THE DIVISION AND OUR TECHNICAL SPECIALISTS, RESPONSIBILITY TRAINING SESSIONS OF BETWEEN 4-8 HOURS IN LENGTH WERE CONDUCTED FOR OVER 800 WORKERS FROM OPERATORS AND MAINTENANCE PEOPLE TO TOP MANAGEMENT PERSONNEL. THESE ORIGINAL SESSIONS WERE FOLLOWED BY ENVIRONMENTAL AWARENESS DAYS IN EACH EMPLOYEE'S WORK AREA, APPLYING WHAT THEY HAD LEARNED TO THEIR SPECIFIC JOBS. AS WITH HEALTH AND SAFETY, EACH EMPLOYEE WITHIN HIS WORKPLACE IS RESPONSIBLE FOR IMPROVING AND PROMOTING ENVIRONMENTAL PROTECTION -- YET ANOTHER APPLICATION OF IMPROVEMENT ON A CONTINUOUS BASIS.

SPILL REPORTING AND INVESTIGATION PROCEDURES WERE ALSO REFINED TO PRODUCE CONSISTENCY ACROSS THE PLANT SITE SO THAT LEARNING EXPERIENCES ARE NOW EXTRACTED FROM EVEN THE SMALL INCIDENTS AND SHARED THROUGHOUT THE DIVISION.

IN GENERAL, THE COMPANY'S AMBITIOUS THREE-YEAR ENVIRONMENTAL PROGRAM LAUNCHED IN EARLY 1986 FOCUSED ON POLLUTION PREVENTION AND ABATEMENT, SPILL PREVENTION AND CONTAINMENT, AND ENVIRONMENTAL MONITORING.

OVER THE LAST TWO YEARS, CAPITAL EXPENDITURES HAVE AMOUNTED TO \$8.2-MILLION ON SUCH PROJECTS AS ENHANCEMENTS TO OUR WASTE WATER TREATMENT SYSTEMS, SEWER SEPARATION WORK, IMPROVED CONTAINMENT SYSTEMS AT SEVERAL OPERATING UNITS, AND BETTER WASTE MANAGEMENT AND ENVIRONMENTAL MONITORING SYSTEMS. THESE EXPENDITURES WERE PART OF A \$12-MILLION SPENDING PLAN DEVELOPED BY THE COMPANY FOR THE '86-'88 PERIOD. THE ADDITIONAL \$3.8-MILLION IS BEING SPENT IN 1988 ON SIMILAR PROJECTS. HERE ARE SOME EXAMPLES OF IMPROVEMENTS IN POLLUTION PREVENTION AND ABATEMENT ACHIEVED TO DATE:

- * AN EXPANSION IN OUR PROCESS WATER TREATMENT FACILITY IN OUR EB/STYRENE PLANT THAT NOW TREATS ALL THE PROCESS WATER FROM THE UNIT;
- * AN ECOLOGY COLUMN INSTALLED AT THE LATEX PLANT WHICH REDUCED THE ORGANICS LEVEL LEAVING THIS PLANT BY MORE THAN 99 PER CENT;
- * A \$1.3-MILLION UNDERGROUND BARRIER WALL BETWEEN THE RIVER AND THE PLANT SITE TO GUARD AGAINST THE POTENTIAL FOR CONTAMINANTS REACHING THE RIVER VIA GROUNDWATER;
- * A VENT COLLECTION SYSTEM AT OUR STYRENE PLANT TO RECOVER HYDROGEN TO BE USED AS A FUEL. INCIDENTALLY, THIS HYDROGEN RECOVERY PROJECT TRANSLATED INTO A 40% CUT IN FUEL COSTS FOR CRACKING ETHYLBENZENE TO STYRENE -- JUST ANOTHER EXAMPLE OF HOW ENVIRONMENTAL INITIATIVES ALWAYS PAY!

PART TWO OF OUR CAPITAL PROGRAM IN THE 1986-'88 PERIOD INVOLVED REDUCING SPILL POTENTIAL. THE FOLLOWING SLIDES SHOW A NUMBER OF THESE PROJECTS:

- * A FREE FLOWING WATER RESERVOIR WAS COMMISSIONED, WITH A BUILT-IN CAPABILITY TO ISOLATE PROCESS WATER FROM THE ST. CLAIR RIVER. THIS RESERVOIR IS USED CHIEFLY IN CONJUNCTION WITH CHLORINATED ORGANICS PRODUCTION;
- * IN ADDITION TO CONTAINMENT FOR PROCESS WATER, WE HAVE GUARDED AGAINST SPILLS WITH THE USE OF CURBING AT THE LOADING FACILITIES OF OUR PROPYLENE OXIDE DERIVATIVES PLANT;

- * CURBING IS NOW ALSO IN PLACE AROUND A PUMP STATION AT ONE OF TWO PLANTS WHERE WE PRODUCE CHLORINE, CAUSTIC AND HYDROGEN;
- * WE HAVE INSTALLED MORE EMERGENCY BLOCK VALVES AT MANY OF OUR PLANTS;
- * ALSO IN THE SPILL PREVENTION AND CONTAINMENT AREA, WE HAVE (AS A MATTER OF POLICY) SIGNIFICANTLY CUT OUR INVENTORIES OF CHLORINE AND SULPHUR DIOXIDE. WITH LESS MATERIAL ON SITE, THERE IS A REDUCED POTENTIAL FOR ANY LOSS TO THE ENVIRONMENT.

IN THE AREA OF ENVIRONMENTAL MONITORING, THE THIRD PART OF OUR CAPITAL SPENDING PROGRAM, WE HAVE ADDED GAS MONITORS FOR AMMONIA AND SULPHUR DIOXIDE. WE HAVE ALSO INCREASED THE NUMBER OF CHLORINE MONITORS TO A TOTAL OF 34 LOCATED BOTH ON OUR SITE AND IN A NEIGHBOURING PLANT.

THESE GAS MONITORS, PLUS OUR ON-LINE WATER SAMPLING SYSTEMS ON ALL STREAMS LEAVING THE PLANT SITE, PROVIDE US WITH THE NECESSARY EARLY WARNING SYSTEMS TO MINIMIZE THE QUANTITY OF MATERIAL LOST FROM A SPILL. IN ADDITION, WE CONDUCT ROUTINE COMPOSITE AND GRAB SAMPLES FROM OUR WATER OUTLETS ON A DAILY BASIS. WE HAVE CONSIDERABLY UPGRADED OUR LABORATORY TESTING CAPABILITY TO THE POINT WHERE WE ARE ABLE TO ANALYZE FOR OVER 40 TRACE CONTAMINANTS IN WATER AT PPB LEVELS OR LOWER. WE ARE MAINTAINING CONTINUOUS MONITORING OF OUTFALLS AND VISUALLY INSPECT THEM ON A ROUTINE BASIS.

THESE EXAMPLES ARE MORE THAN JUST A LIST OF COMPLETED PROJECTS. IN EACH CASE THEY ARE THE END PRODUCT OF SIGNIFICANT EFFORTS TO IDENTIFY OPPORTUNITIES, ASSESS AND UNDERSTAND PROBLEMS, AND APPLY SOLUTIONS. ALL ARE THE RESULT OF THE CONTINUOUS IMPROVEMENT PROCESS, OFTEN INCORPORATING THE EFFORTS OF INTER-DEPARTMENTAL TEAMS.

THE NET RESULT OF ALL THESE INITIATIVES ARE EVIDENT IN SEVERAL AREAS. WE HAVE SEEN A REDUCTION BY MORE THAN 50% IN THE NUMBER OF ENVIRONMENTAL INCIDENTS OVER THE PAST THREE AND A HALF YEARS WITH YEAR-TO-DATE 1988 NUMBERS BASICALLY UNCHANGED FROM 1987. OVER THE PERIOD 1985 TO 1987, THE QUANTITY OF MATERIAL PER INCIDENT HAS GONE DOWN DRAMATICALLY BY MORE THAN 80 PER CENT, AS THIS SLIDE SHOWS. IN THE AREA OF QUANTITY RELEASED PER SPILL, WE HAVE SEEN A REVERSAL YEAR-TO-DATE IN 1988 DUE PRIMARILY TO TWO SPILLS IN THE FIRST QUARTER OF THE YEAR.

IN 1979 OUR DATA SHOWED SOME 1016 KG/DAY OF PRIORITY CONTAMINANTS ENTERING THE ST. CLAIR RIVER FROM OUR OPERATIONS. IN JANUARY 1986, A JOINT MOE AND ENVIRONMENT CANADA STUDY FOR 1985 SHOWED REDUCTIONS TO ABOUT 350 KG/DAY. BY THE END OF 1986 THIS FIGURE WAS DOWN TO 45 KG/DAY. TODAY, IT IS LESS THAN 10 KG/DAY.

WHERE DO WE GO FROM HERE? IN THE FUTURE WE WILL BE WORKING ON SPECIFIC PROGRAMS TO FURTHER REDUCE LEVELS OF CONTAMINANTS LEAVING THE SITE. SOME AREAS SINGLED OUT FOR PARTICULAR ATTENTION INCLUDE FURTHER SEWER SEPARATION, REDUCTION IN WATER USE AND EXPANDED USE OF WATER RECYCLING. WE HAVE IDENTIFIED, AND WILL CONTINUE TO SEEK WAYS, TO FURTHER REDUCE AIR EMISSIONS.

OUR GOAL IS TO VIRTUALLY ELIMINATE SPILLS BY THE CONTINUED IDENTIFICATION AND CORRECTION OF ANY WEAKNESSES IN OUR SYSTEMS OR PRACTISES. WE WILL IMPROVE OUR "EARLY WARNING" CAPABILITIES AND EXPAND LABORATORY ANALYSES TO DETECT SMALLER AND SMALLER QUANTITIES OF SPECIFIC POLLUTANTS IN BOTH AIR AND WATER.

OUR AIM IS ALSO TO CONTINUE REDUCTIONS OF WASTE AT THE SOURCE, EXPAND OUR GROUNDWATER PROTECTION PROGRAMS AND EVALUATE ALTERNATIVES TO LANDFILLING. WE RECENTLY ANNOUNCED A FEASIBILITY STUDY TO BUILD AND OPERATE A ROTARY KILN INCINERATOR TO BURN SITE-GENERATED CHEMICAL WASTE. AN ADVISORY PANEL IS BEING ESTABLISHED WITH A CROSS-SECTION OF COMMUNITY REPRESENTATIVES TO IDENTIFY AND ADDRESS PUBLIC QUESTIONS REGARDING THIS PROJECT.

IN RECENT YEARS, WE HAVE COME TO RECOGNIZE THE IMPORTANCE OF TWO-WAY COMMUNICATIONS WITH THE PUBLIC. AFTER ALL, CONTINUOUS IMPROVEMENT IS NOT ACCOMPLISHED IN A VACUUM. WE BELIEVE THE PUBLIC HAS A NEED TO KNOW MORE ABOUT WHAT WE DO, HOW WE OPERATE AND WHAT OUR GOALS ARE FOR IMPROVED ENVIRONMENTAL PERFORMANCE IN THE FUTURE.

IT IS IMPORTANT TO US THAT THE PUBLIC SEES US, THROUGH OUR ACTIONS, AS OPEN, HONEST AND RESPONSIVE TO THEIR QUESTIONS. OUR DOORS ARE OPEN TO ANYONE WITH AN INTEREST IN SEEING WHAT GOES ON INSIDE OUR PLANT GATES. SINCE WE BEGAN A PUBLIC TOUR PROGRAM IN JULY 1986 SOME 3,000 PEOPLE HAVE VISITED THE SITE INCLUDING THE GENERAL PUBLIC, CIVIC OFFICIALS, THE MEDIA, ENVIRONMENTAL GROUPS, POLITICIANS AND STUDENTS.

WE HAVE ALSO PLACED A STRONG EMPHASIS ON OPENNESS WITH THE MEDIA. EVERY QUESTION IS RESPONDED TO AND EVERY ENVIRONMENTAL INCIDENT REPORTED TO THE MINISTRY OF ENVIRONMENT IS ALSO COMMUNICATED TO THE MEDIA AT THE SAME TIME AS WE REPORT TO THE M.O.E. DISCUSSIONS ARE HELD WITH THE LOCAL PRINT AND BROADCAST MEDIA ON SUCH TOPICS AS THE MEANING OF SCIENTIFIC TERMS, AND CHEMICALS USED AND PRODUCED AT DOW.

WHILE THE FUTURE HOLDS MANY CHALLENGES, WE ARE EXCITED BY WHAT WE WILL ACCOMPLISH THROUGH OUR CURRENT AND PLANNED PROGRAMS. OUR TRACK RECORD IS CONFIRMATION THAT CONTINUOUS COMMITMENT TO PROTECTING THE ENVIRONMENT PAYS SIGNIFICANT DIVIDENDS IN PERFORMANCE AND COMPANY CREDIBILITY.

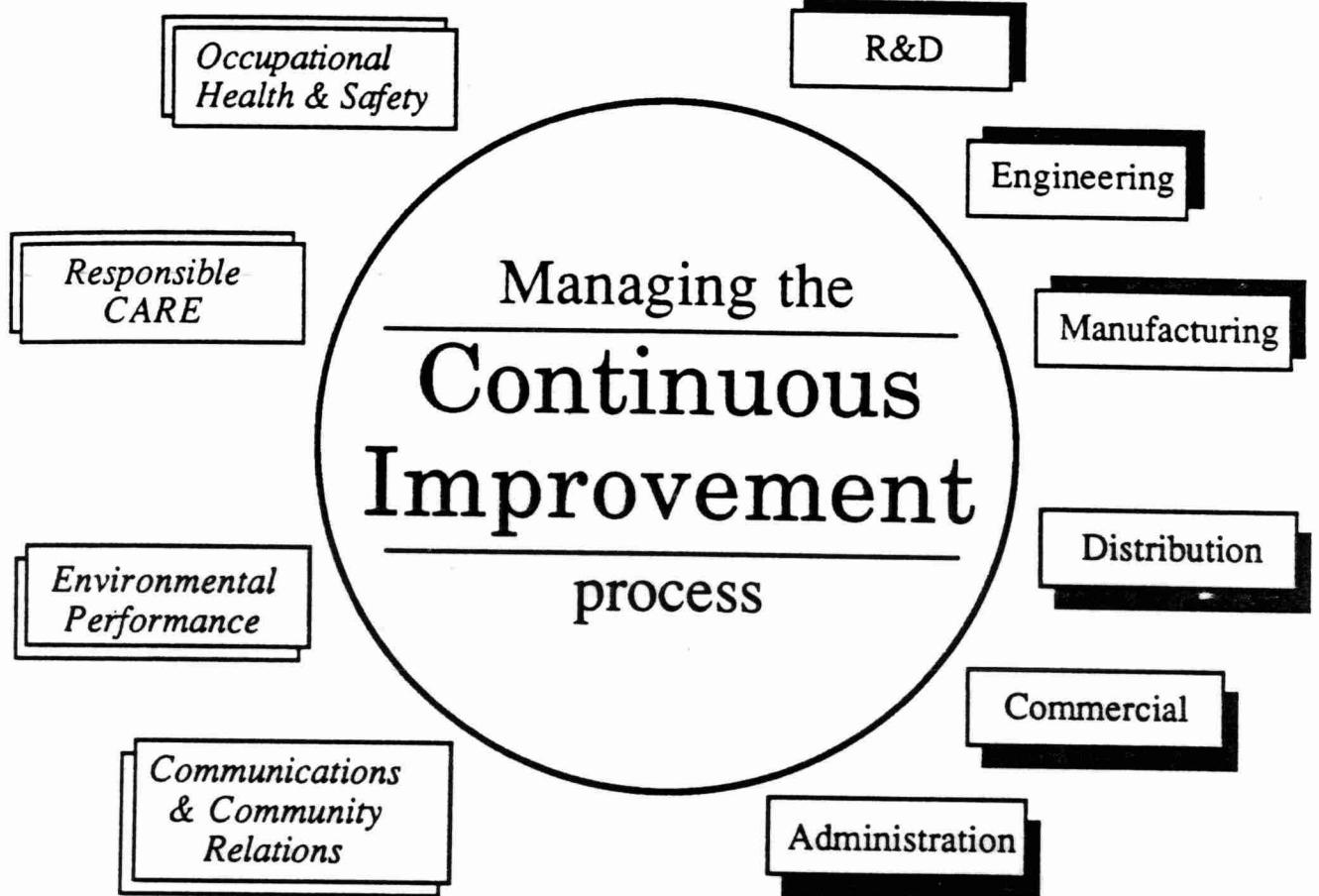
THERE IS SOMETHING ELSE WE CAN BE SURE OF IN THE YEARS AHEAD. MANAGING THE CONTINUOUS IMPROVEMENT PROCESS IS A NEVER-ENDING CYCLE OF PLANNING, DESIGNING AND IMPLEMENTING CHANGES AND, FINALLY, MEASURING THE RESULTS. WE WILL REMAIN OUR OWN SEVEREST CRITICS WITH THE CONFIDENCE THAT OUR PROGRESS WILL BE RECOGNIZED.

AS THE FINAL SLIDE SHOWS, PROTECTING THE ENVIRONMENT IS A RESPONSIBILITY WE TAKE VERY SERIOUSLY.



QUALITY
WHAT IS IT?

CONTINUOUS IMPROVEMENT



Managing the Continuous Improvement process

*Occupational
Health & Safety*

R&D

*Responsible
CARE*

Engineering

*Environmental
Performance*

Manufacturing

*Communications
& Community
Relations*

Distribution

Commercial

Administration

POLLUTION PREVENTION AND ABATEMENT

SPILL PREVENTION AND CONTAINMENT

ENVIRONMENTAL MONITORING

Environmental Policy

The Dow Chemical Company is committed to continued excellence, leadership and stewardship in protecting the environment. Environmental protection is a primary management responsibility as well as the responsibility of every Dow employee.

Environmental Policy

*In keeping with this policy,
our objective as a Company is
to reduce waste and achieve
minimal adverse impact on the
air, water, and land through
excellence in environmental
control.*

RESOURCES

- * 36 people now dedicated to Environmental Programs
- * Issue Management Team
- * Employee Awareness Programs
- * Environmental Awareness Days

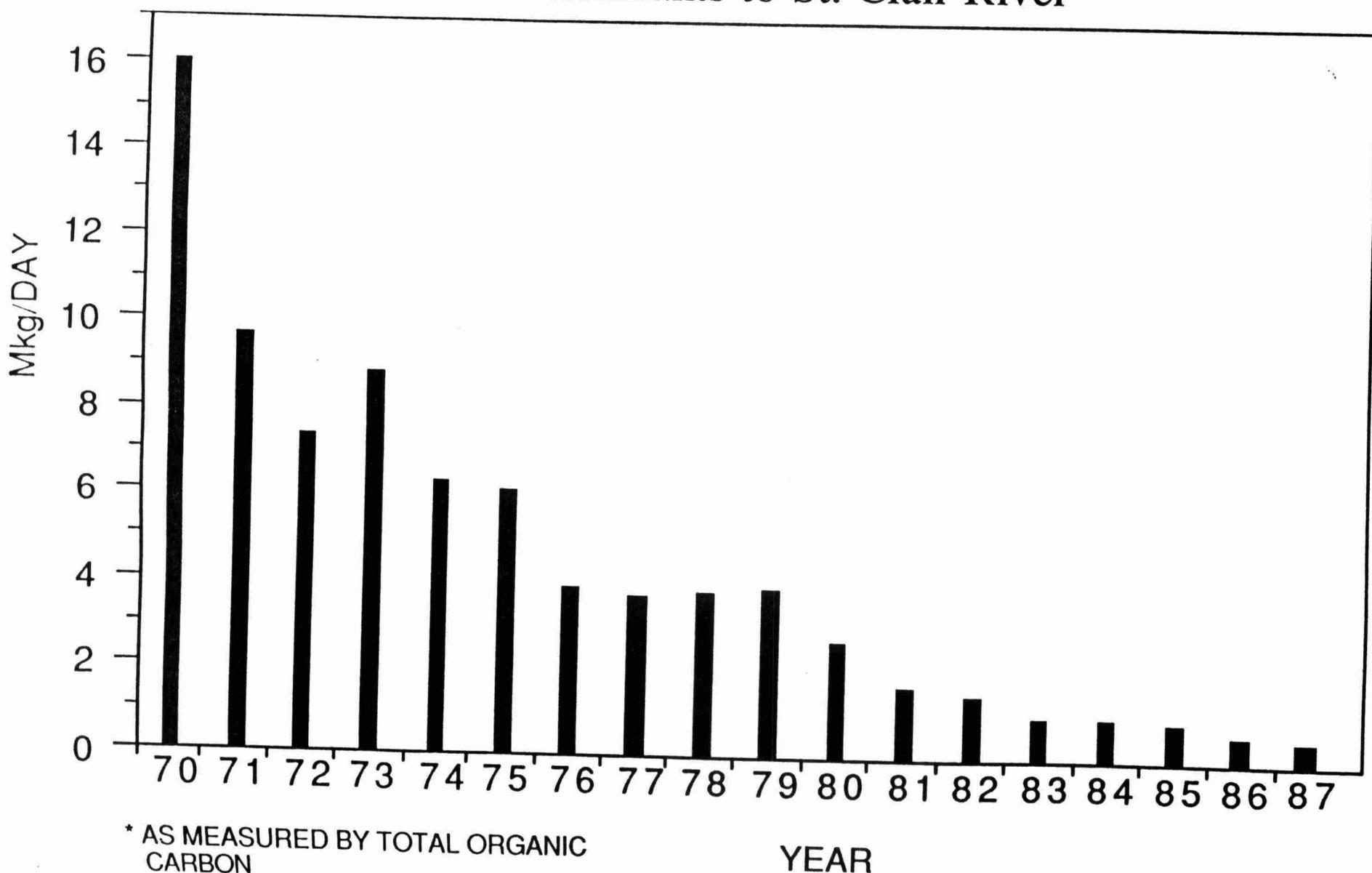
Accomplishments 1986 to date

\$8.2 million expenditure to improve-

- * Water purification systems
- * Sewer separation work
- * Containment systems
- * Waste management & environmental monitoring

Dow Chemical Canada Inc.
Sarnia Division

Contaminants to St. Clair River

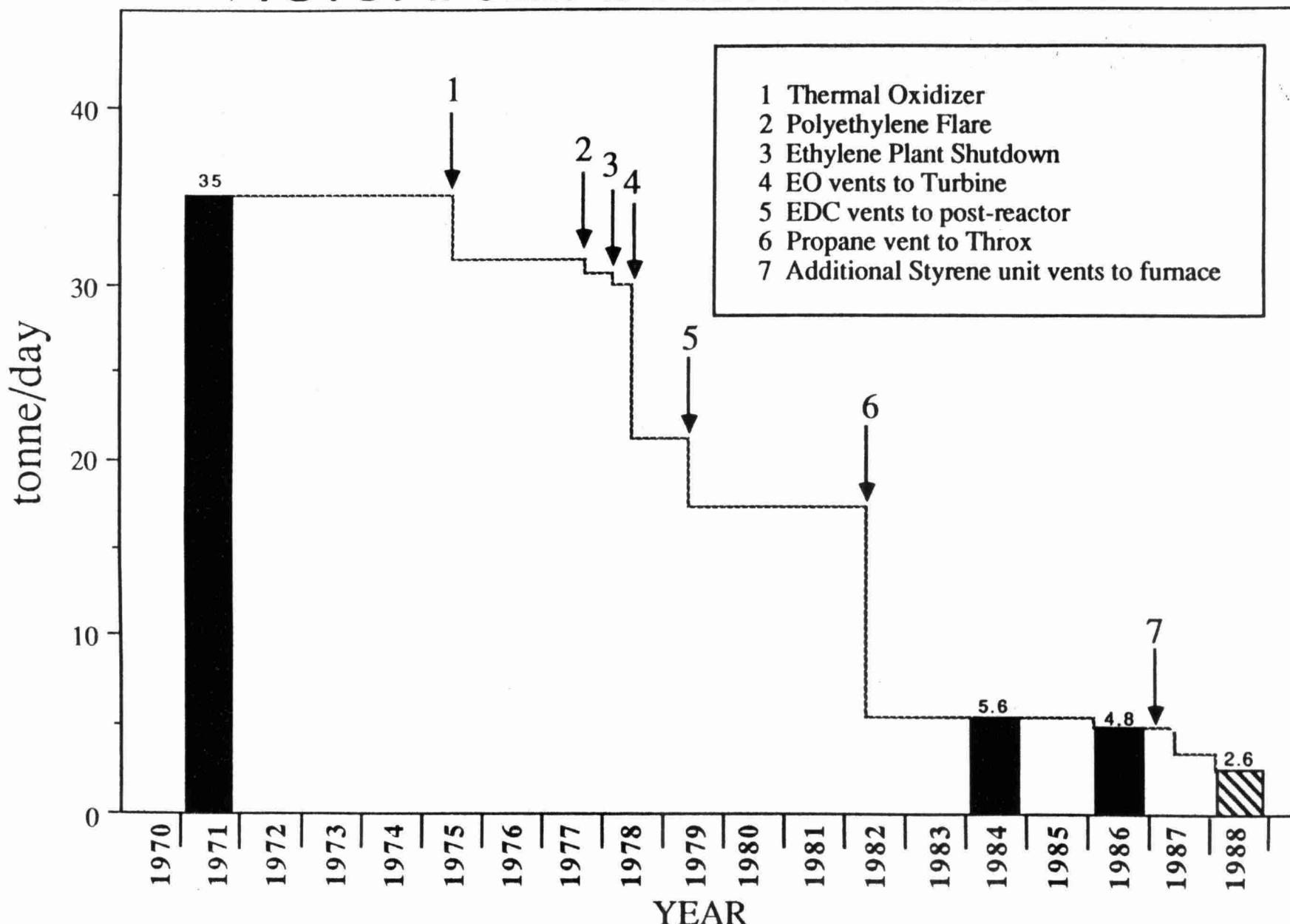


(kg/day)

Dow Chemical Canada Inc.

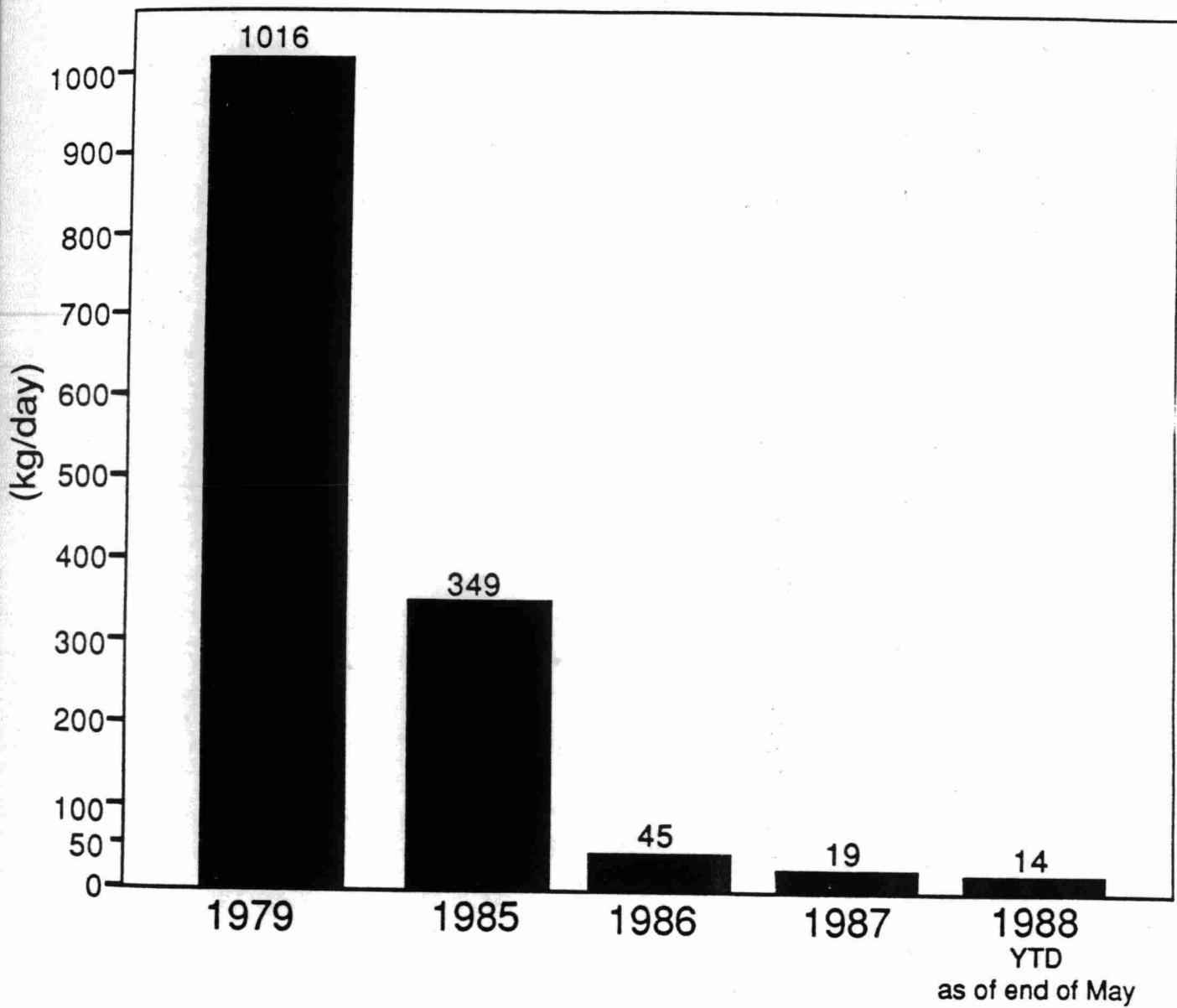
Sarnia Division

V.O.C. Point Source Emissions



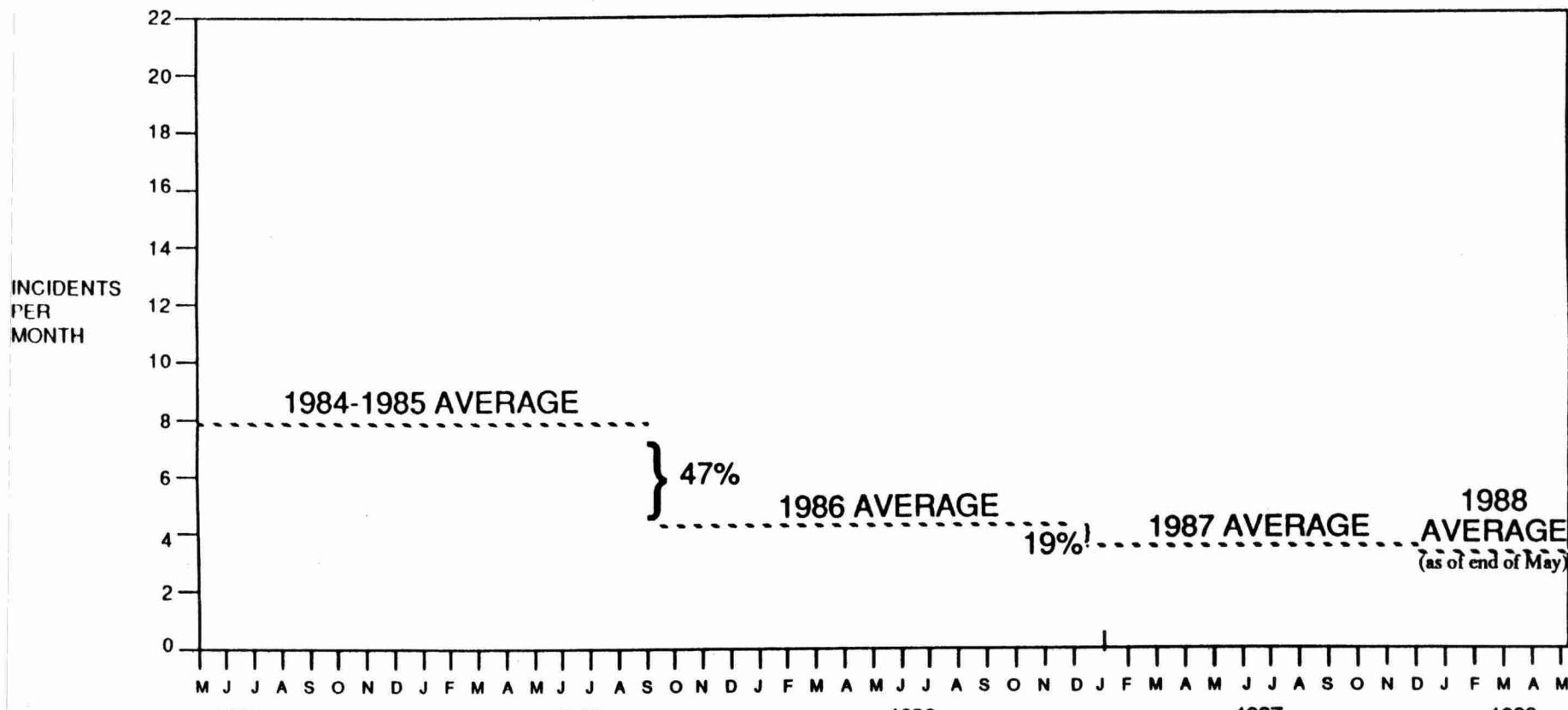
Dow Chemical Canada Inc.
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Specific Contaminants to the St. Clair River



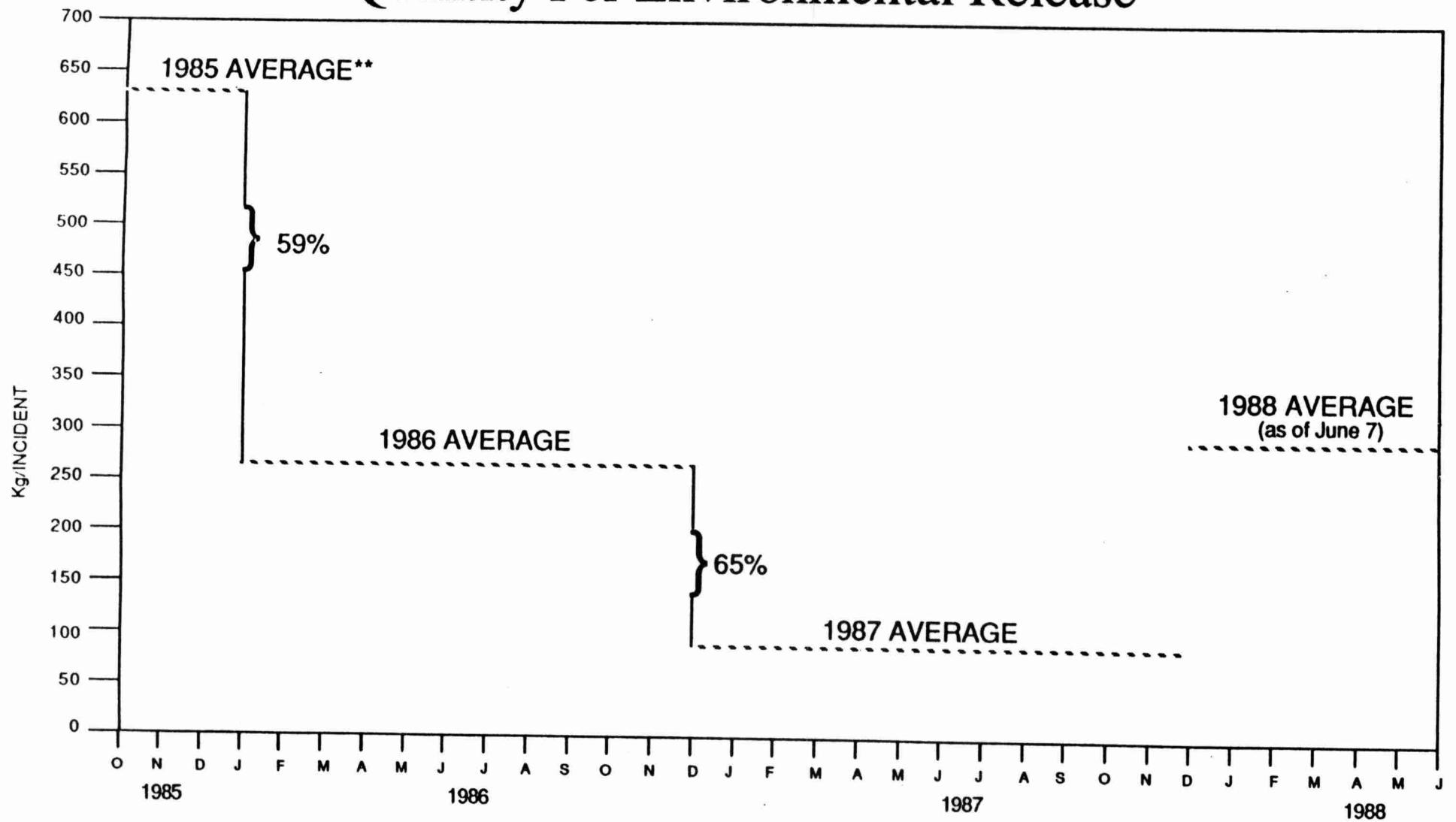
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Number of Environmental Releases*



* AS MEASURED BY CURRENT GUIDELINES

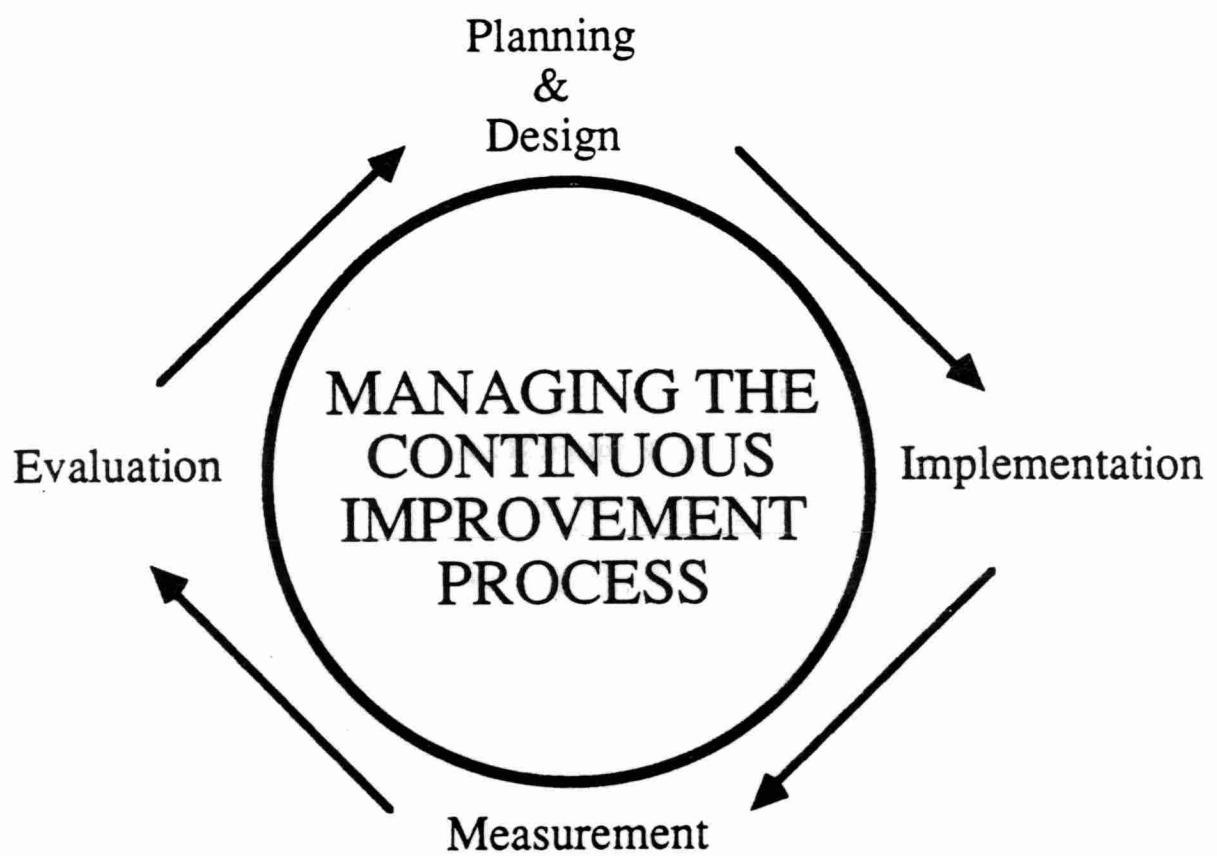
Quantity Per Environmental Release*

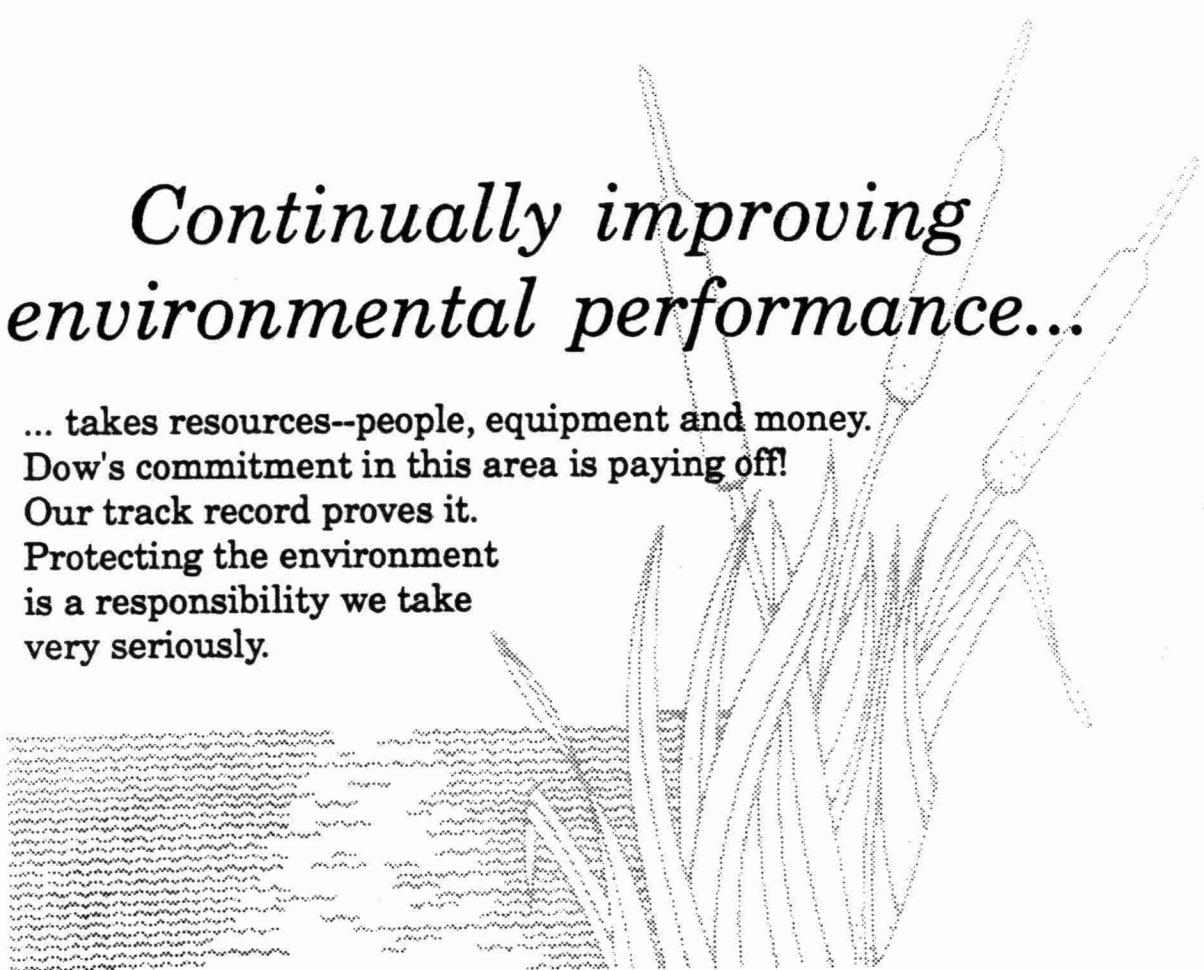


Future Emphasis

Further sewer separation
Reduction in water use
Expanded use of water recycling
Reduced air emissions

The Continuous Improvement Wheel





Continually improving environmental performance...

... takes resources--people, equipment and money.
Dow's commitment in this area is paying off!
Our track record proves it.
Protecting the environment
is a responsibility we take
very seriously.



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